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*Admitted only in Maryland
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*Practice Limited to
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September 30, 2003

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Mail Stop: Patent Application



Re: U.S. Non-Provisional Utility Patent Application under 37 C.F.R. § 1.53(b)
Appl. No.: (To Be Assigned); Filed: Herewith
For: **Methods and Systems to Compensate for a Stitching Disturbance of a Printed Pattern in a Maskless Lithography System Utilizing Overlap Without an Explicit Attenuation**
Inventors: Azat LATYPOV *et al.*
Our Ref: 1857.2100000

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office:

1. PTO Fee Transmittal (Form PTO/SB/17);
2. PTO Utility Patent Application Transmittal (Form PTO/SB/05);
3. U.S. Utility Patent Application entitled:

Methods and Systems to Compensate for a Stitching Disturbance of a Printed Pattern in a Maskless Lithography System Utilizing Overlap Without an Explicit Attenuation

and naming as inventors:

Azat LATYPOV
Karel VAN der MAST

the application consisting of:

- a. An Application Data Sheet (37 C.F.R. § 1.76);
- b. An original and facsimile copy of the executed Declaration;
- c. A specification containing:
 - i. 21 pages of description prior to the claims;
 - ii. 4 pages of claims (15 claims - 3 Independent);
 - iii. a one (1) page abstract;
- d. 13 sheets of drawings: (Figures 1-10, 10A, 11, 12);
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3);
5. Recordation Form Cover Sheet;
6. An original and facsimile copy of the executed Assignment to ASML Holding, N.V., recordation of which is hereby respectfully requested;
7. Two (2) return postcards; and
8. Credit Card Payment Form PTO-2038 for \$790.00 to cover:
 \$750.00 Filing fee for patent application; and
 \$ 40.00 Assignment recordation fee.

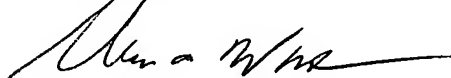
It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

Commissioner for Patents
September 30, 2003
Page 3

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Theodore A. Wood", written over a horizontal line.

Theodore A. Wood
Attorney for Applicants
Registration No. 52,374

Enclosures

::ODMA\MHODMA\SKGF_DC1;183293;1

16519 U.S. PTO
09/30/03

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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 790.00

Complete if Known

| | |
|----------------------|----------------|
| Application Number | To Be Assigned |
| Filing Date | Herewith |
| First Named Inventor | Azat LATYPOV |
| Examiner Name | To Be Assigned |
| Art Unit | To B Assigned |
| Attorney Docket No. | 1857.2100000 |

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit card ☐ Money Order ☒ Other** ☐ None

** Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

☐ Deposit Account

Deposit Account Number 19-0036

Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any over payments

☐ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Small Entity

| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee Paid |
|----------|----------|----------|----------|------------------------|----------|
| 1001 | 750 | 2001 | 375 | Utility filing fee | \$750.00 |
| 1002 | 330 | 2002 | 165 | Design filing fee | |
| 1003 | 520 | 2003 | 260 | Plant filing fee | |
| 1004 | 750 | 2004 | 375 | Reissue filing fee | |
| 1105 | 160 | 2005 | 80 | Provisional filing fee | |

SUBTOTAL (1) (\$) 750.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

| | Extra | Fee from below | Fee Paid |
|----------------------------|-----------|----------------|----------|
| Total Claims 15 - 20** = 0 | X \$18.00 | = \$0.00 | |
| Indep. Claims 3 - 3** = 0 | X \$84.00 | = \$0.00 | |
| Multiple Dependent | | = | |

Large Entity Small Entity

| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description |
|----------|----------|----------|----------|---|
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 |
| 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 |
| 1203 | 280 | 2203 | 140 | Multiple dependent claim, if not paid |
| 1204 | 84 | 2204 | 42 | **Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | **Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissue, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

| Fee Code | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee Paid |
|----------|----------|----------|----------|--|----------|
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | |
| 1502 | 50 | 2052 | 25 | Surcharge-late provisional filing fee or cover sheet | |
| 1053 | 130 | 1053 | 130 | Non-English specification | |
| 1812 | 2,520 | 1812 | 2,520 | For filing a request for ex parte reexamination | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1252 | 410 | 2252 | 205 | Extension for reply within second month | |
| 1253 | 930 | 2253 | 465 | Extension for reply within third month | |
| 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month | |
| 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month | |
| 1401 | 320 | 2401 | 160 | Notice of Appeal | |
| 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal | |
| 1403 | 280 | 2403 | 140 | Request for oral hearing | |
| 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | |
| 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable | |
| 1453 | 1,300 | 2453 | 650 | Petition to revive - unintentional | |
| 1501 | 1,300 | 2501 | 650 | Utility issue fee (or reissue) | |
| 1502 | 470 | 2502 | 235 | Design issue fee | |
| 1503 | 630 | 2503 | 315 | Plant issue fee | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | \$40.00 |
| 1809 | 750 | 2809 | 375 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 1810 | 750 | 2810 | 375 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |


Other fee (specify) _____

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 40.00

SUBMITTED BY

Complete (if applicable)

| | | | | | |
|-------------------|---|--------------------------------------|--------|-----------|--------------------|
| Name (Print/Type) | Theodore A Wood | Registration No. (Attorney/Agent) | 52,374 | Telephone | 202-371-2600 |
| Signature |  | | | Date | September 30, 2003 |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

:::ODMAWHODMASKGF_DC1;183292;1

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| | | | |
|---|--|--|--|
| UTILITY PATENT APPLICATION TRANSMITTAL <i>(only for new nonprovisional applications under 37 CFR 1.53(b))</i> | | Attorney Docket No. 1857.2100000 | |
| | | First Inventor Azat LATYPOV | |
| | | Title Methods and Systems to Compensate for a Stitching Disturbance of a Printed Pattern in a Maskless Lithography System Utilizing Overlap Without an Explicit Attenuation | |
| | | Express Mail Label No. | |

| | |
|--|---|
| APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i> | ADDRESS TO: Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450 |
|--|---|


| | |
|---|--|
| 1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17) <i>(Submit an original, and a duplicate for fee processing)</i> 2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. 3. <input checked="" type="checkbox"/> Specification [Total Pages <u>26</u>] <i>(preferred arrangement set forth below)</i> - Descriptive title of the Invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets <u>13</u>] 5. Oath or Declaration [Total Pages <u>4</u>] a. <input checked="" type="checkbox"/> Newly executed (facsimile copy) b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) <i>(for continuation/divisional with Box 18 completed)</i> i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. <input checked="" type="checkbox"/> Application Data Sheet. (See 37 CFR 1.76). | 7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program <i>(Appendix)</i> 8. Nucleotide and/or Amino Acid Sequence Submission <i>(if applicable, all necessary)</i> a. <input type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper c. <input type="checkbox"/> Statements verifying identity of above copies |
|---|--|

| |
|--|
| ACCOMPANYING APPLICATION PARTS |
| 9. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & documents) 10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of Attorney <i>(when there is an assignee)</i> 11. <input type="checkbox"/> English Translation Document (if applicable) 12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations 13. <input type="checkbox"/> Preliminary Amendment 14. <input checked="" type="checkbox"/> Two (2) Return Receipt Postcards (MPEP 503) <i>(Should be specifically itemized)</i> 15. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i> 16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 17. <input checked="" type="checkbox"/> Other: <u>Authorization Under 37 C.F.R. § 1.136(a)(3)</u> <input checked="" type="checkbox"/> Other: <u>The name of the assignee is: ASML Holding, N.V.</u> |

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No: ____/____
 Prior application information: Examiner _____ Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

| | | | | | |
|--|---|---|----------------|-----------------------------------|--------------------|
| 19. CORRESPONDENCE ADDRESS | | | | | |
| <input checked="" type="checkbox"/> Customer Number 26111 | | | | | |
| or <input type="checkbox"/> Correspondence address below | | | | | |
| NAME | | STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. | | | |
| | | Attorneys at Law | | | |
| ADDRESS | | 1100 New York Avenue, NW | | | |
| CITY | Washington | STATE | DC | ZIP CODE | 20005-3934 |
| COUNTRY | United States | TELEPHONE | (202) 371-2600 | FAX | (202) 371-2540 |
| NAME (Print/Type) | Theodore A. Wood | | | Registration No. (Attorney/Agent) | 52,374 |
| SIGNATURE |  | | | Date | September 30, 2003 |

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

::ODMAMHODMAISKGF_DC1;183324;1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Azat LATYPOV *et al.*

Appl. No.: To Be Assigned

Filed: Herewith

For: **Methods and Systems to Compensate
for a Stitching Disturbance of a
Printed Pattern in a Maskless
Lithography System Utilizing Overlap
Without an Explicit Attenuation**

Confirmation No.: To Be Assigned

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1857.2100000

**Authorization To Treat A Reply As Incorporating An Extension Of
Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Theodore A. Wood
Attorney for Applicants
Registration No. 52,374

Date: September 30, 2003

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